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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,173	01/30/2002	Clinton S. Hartmann	RFSC-0005	2725

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EXAMINER	
ODLAND, DAVID E	
ART UNIT	**PAPER NUMBER**
2662	

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/066,173	HARTMANN, CLINTON S.	
	Examiner	Art Unit	
	David Odland	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 January 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. Figures 2A-2D and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 9 is objected to because of the following informalities:

Claim 9 recites "said groups" but the independent claim recites only one group.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-10 recite a "...propagated signal..." in the preamble. A 'propagated signal' is not a process, machine, manufacture or composition of matter and is therefore non-statutory subject matter.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites "...wherein said group encodes data....", which is referring to the group of timeslots from claim 1. Since timeslots are merely intervals of time in which something is performed, it is unclear how time slots can actually encode data.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 5-13 and 15-20, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Ueno et al. (USPN 3,767,855), hereafter referred to as Ueno.

Referring to claims 1 and 11, Ueno discloses a propagated signal (a signal is modulated for transmission through a communications system (see abstract and column 1 lines 1-64)), comprising:

an element of data contained within a time period of said propagated signal (data bits are contain within a time period (see figures 1A-1D and column 1 lines 1-64)), said time period

divided into a group of time slots (the time period T1 is divided into time slots 0-7 (see figure 1B)); and

multiple pulses distributed in a predetermined manner among said time slots by pulse group keying to encode said data (several words of a frame, which overall comprise multiple pulses, are encoded pulse position modulation (PPM), wherein the frame is denoted by a frame synchronization pulse Pf (see figure 1D and column 1 lines 60-64)). Note it appears as though the Ueno reference has a typographical error since in column 1 lines 60-64, Ueno discloses that frame synchronization word Pf is to replace the word synchronization pulse Pw, but figure 1D still shows Pw, therefore Pw should be interpreted as Pf.

Referring to claims 2 and 12, Ueno discloses the system discussed above. Furthermore, Ueno discloses that the data is ascertainable by mapping (inherently, at the receiving end of the transmission the PPM encoded signal is mapped back to a digital signal so that it can be processed (see abstract and item 112 of figure 2B)).

Referring to claims 3 and 13, Ueno discloses the system discussed above. Furthermore, Ueno discloses that the time slots in said group are adjacent (the time slots in Ueno are adjacent (see figure 1B)).

Referring to claims 5 and 15, Ueno discloses the system discussed above. Furthermore, Ueno discloses that the time slots have differing characteristics (the time slots have different numbers (i.e. 0 through 7) (see figure 1B)).

Referring to claims 6 and 16, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the said group encodes data that is more than fifteen bits long (more than fifteen bits are encoded (see figure 1A). Note, figure 1A only shows 9 bits being encoded but

that is because this is only a snapshot of an example of the encoding process. The bits are a stream that would have to be more than 15 bits, since it would not make sense to devise a communication system that only encodes 9 bits.

Referring to claims 7 and 17, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the element of data is selected from the group consisting of a header, an error detection message, a synchronization element and a data message (the data is message information from a transmitter (see column 1 lines 1-64)).

Referring to claims 8 and 18, Ueno discloses the system discussed above. Furthermore, Ueno disclosed a plurality of said time periods (the PPM words are divided into a plurality of frames for transmitting the data (see figures 1A-1D and column 1 lines 1-64)).

Referring to claims 9 and 19, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the groups have differing numbers of multiple pulses (a differing nuber of pulses can exist in the groupings (see figure 1A). Note, the group for '010' has one pulse, the group for '011' has two pulse and although its not shown a group for '111' would have three pulses.

Referring to claims 10 and 20, Ueno discloses the system discussed above. Furthermore, Ueno disclosed that the number of time slots vary in said time periods (the number of time slots can vary based on the value of N in 2^N (see column 1 lines 30-39)).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 4 and 14, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno in view of Austin (USPN 6,236,855), hereafter referred to as Austin.

Referring to claims 4 and 14, Ueno discloses the system discussed above. Ueno does not disclose that the time slots are not adjacent. However, Austin discloses a system wherein stations utilize non-adjacent time slots for communicating, thereby preventing or reducing channel interference. Therefore, it would have been obvious to one skilled in the art at the time of the invention to utilize timeslots that are not adjacent in the Ueno system because doing so would aid in preventing inter channel interference.

Conclusion

10. The following prior art, which is made of record and not relied upon, is considered pertinent to applicant's disclosure:

a. U.S. Patent Number 4734768 to Pexa.

b. U.S. Patent Number 4852090 to Borth.

c. U.S. Patent Number 5923701 to Nakamura.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

October 29, 2003

JOHN PEZZLO
PRIMARY EXAMINER